Tasks for 1st hour

- Complete Pre-Test and bring to front
- Go Out West Entrance (to your right)
  - Complete/Confirm Information Sheets with Olivia
  - Provide any Missing Documentation
  - Get Computer Account
- Return by 0815 for first lecture

Deployment Planning & Medical Threat Assessment

Thomas Clarke MD MPH
LtCol USAF MC SFS
Program Director RAM/GPM Residency

It is a Typical Week in the FSO

- Monday was just OK – sick call and flight physicals
- Tuesday was great – flew MH-53
  at the range – 750 rounds of 7.
  and 150 of .50 cal - getting goo

It is a Typical Week in the FSO

- Wednesday typical clin
  in AM, training for
  CBRNE Mass Casualty
  Exercise in afternoon *

- Thursday you did clinic in the AM then went to commanders call and gave shots at the squadron for the afternoon – beer light was on by 1400
- Friday was an admin day doing a problematic waiver when you are suddenly called out of the office to go to “the vault”

At the vault you get information

- Your unit is tasked to g
  on an intense mission
- The first pieces are lea
  within 6 hours, all will
  have departed by Sat 0
- You have not been to th
  location before
- It was not on your vacation list
- Mission success is paramount - Safety vs. Mission paradigm changes
- Your job is simple - THREAT ASSESSMENT AND MITIGATION!! Insure mission success

Medical Planning Pitfalls

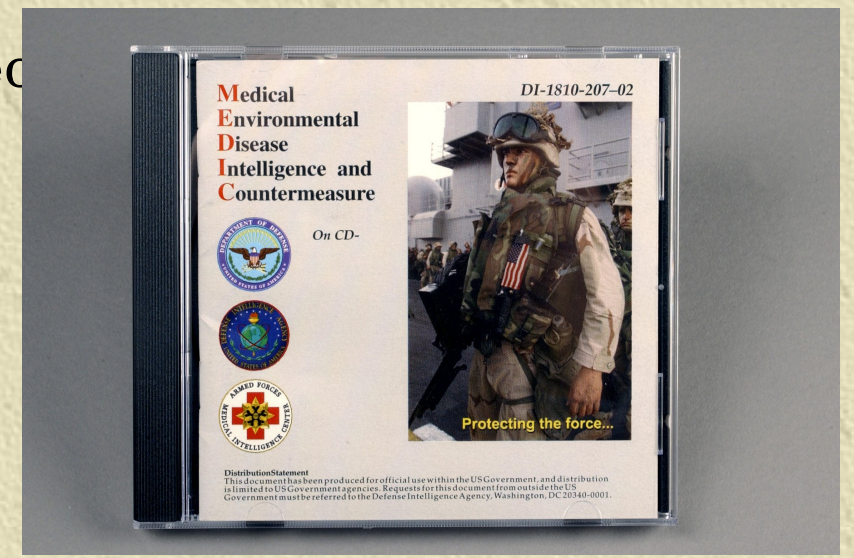
- Too Operational
  - They don’t need you to pick the target, weapons, or timelines
- Too Conservative
  - Mission success is paramount!! Don’t try to limit who goes, where they go, how they get there, or what the mission is – some missions are dangerous by their nature!! Don’t be a burden!!!
- Too Aggressive
  - Neither does the mission outweigh all concerns for safety and well being. You should be conscious of safety issues
- Your Job is Simple:
  - Define the medical risks that may compromise the mission
  - Find countermeasures to minimize their impact
  - Get support from the people who matter

How to do a Threat Assessment

- Steps
  - Define and List Assumptions (keep current)
  - Identify Threats
  - Determine Preventive Countermeasures
  - Determine Options When Prevention Fails (have backup plans)
  - Make Recommendations
  - Insure Commander Buy-In & Support
  - Constant Surveillance to Monitor Status

Where to get Information

- Intel Officer – primary source of assumptions
- AFMIC**
  - Website – both non-sec and secure
  - Disc
- CDC Website
  - Yellow Book
- CIA Website
  - World Handbook
- Other
  - Past AAR, Peace Corps, Missionaries, etc.


Medical
Environmental
Disease
Intelligence and
Countermeasure
DI-1810-207–02
On CD-
Protecting the force...
Distribution Statement
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Steps – Assumptions

- Enemy Situation
  - Numbers, tactics, weapons
- Friendly Situation
  - US troops, Contactors, Coaliti ocals
- Location(s) to be deployed
- Basic Nature of Mission
  - How, where, and when will they operate
  - Where will they stay
  - Interaction with environment, locals, wa

Steps – Medical Threats

- Battle Injury – inverse relationship
  - Enemy Action
  - Terrorism
  - Crime
- Non Battle Injury
  - MVAs *
  - Sports
  - Fights

Steps - Threats

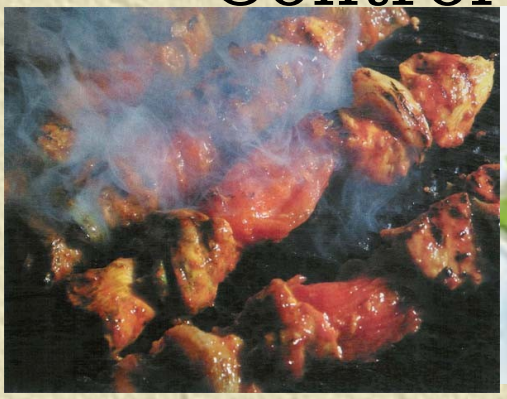
- Disease Threats
  - Food and Water Borne (Diarrhea, HepA/E, Typhoid)
  - Vector Borne (malaria, dengue, yellow fever, plague, leish)
  - Person to Person (HIV, HepB/C/D, GC, chlam, syph, TB)
  - Animal or Water exposure (Rabies, Lepto, Schisto)
  - Environment (heat, cold, altitude, immersion, pollution)
  - Pre-existing Disease (Welcome to Brown & Root!)
- Take the whole list and identify which are players and which are not

Preventive Countermeasures

- Battle Injury **
  - Tactics
  - Armor
  - Kevlar
  - SA/BC!!
- Non battle injury
  - Travel limitations
  - Vehicular Travel
  - Sports Approval

Preventive Countermeasures

- Food and Water Borne disease
  - Immunizations – Hepatitis A & Typhoid
  - Limit or Control Sources of Food – right!
  - Control Sources of W



Preventive Countermeasures

- Vector Borne Dise
  - Clothing (duty and
  - DEET (off duty)
  - Pyrmethrin (unit)
  - Bednets (new)
  - Malaria Prophylax
    - Doxycycline
    - Mefloquine
    - Chloroquine
    - Primaquine

Preventive Countermeasures

- Person to Person
  - Control Exposure to local population – yea right! Don't try to limit contact just modify!!
  - Immunizations – Hepatitis B
  - Pre-Deployment PPD (follow
    guidelines (usually within 1
  - Safe Sex – everybody gets condoms!! No exceptions.

Preventive Countermeasures

- Animal or Water Exposure
  - No swimming in natural fresh water bodies (leptospirosis & schistosoma, drowning)
  - No pets (rabies, plague, bites)
- Environmental
  - Proper Gear
    - (cold, hot, PPE)
  - Appropriate Operation
  - Acetazolamide/Hytrin
  - Glasses, goggles, sunb

What About When Prevention Fails?

What is your serious trauma or serious disease plan?

- Stabilization – what you need to be able to do!!!
  - Airway Control, Bleeding Control, Blood and Fluid Replacement
  - Local vs. Mobile Capability
- Surgical Availability – 6 hours from point of injury
  - Organic (MFST, EMEDs, CSH)
  - Local economy capability
  - Surrounding Nation capability
- Transport capability
  - Vehicles (traffic and roads)
  - Aircraft (weather and reliabilit
  - Map and distance/time grids

- Traditional Aerevac should not be your primary plan!

Transport capability

When complete – sell your plan

- Divide Recommendations
  - Pre-Deployment recommendations
  - During Deployment recommendations
  - Post Deployment recommendations
- Bring to commander and request support – emphasize they must be “his” recommendations
- Prepare Briefing for Deploying Force
- Enjoy the Trip!! – You’ll tell lies about this when you are too old to remember the truth!!

Example of Threat Assessment
Haiti Invasion

- Assumptions
  - Hostile rebel guerrilla forces mixed in close proximity to government forces and civilians
  - Operations center – out of Guantanamo Bay Cuba
  - Operation intent – remove current leadership and decompress situation. Bring fight to rebels if necessary.
- AFSOC assets – four MH-53, two MC-130s, one slick C-130
- Possible military as well as civilian casualties during operations – our responsibility is care for AFSOC personnel. No civilian care expected.

Example of Threat Assessment

Haiti Invasion - Injury

- Threats
  - Battle Injury – Small arms, grenades, improvised explosives. No CBRNE
  - Non battle injury – MVAs, sports,

Example of Threat Assessment

Haiti Invasion - Disease

- Food & Water borne disease
  - Diarrheal disease (bacterial, protozoal, and viral) – common threat from contaminated food and water sources in Haiti, DR, Cuba, and other Caribbean islands.
  - Hepatitis A and E – Hep A highly endemic with nearly all locals infected as children, Hep E unknown
  - Typhoid and paratyphoid fever – highly endemic
- COUNTERMEASURES
  - Confirm Immunization status for Hep A and typhoid fever
  - Bottled, Baked, Boiled, or Peeled (BBBP).

Example of Threat Assessment
Haiti Invasion- Disease

- Vector borne disease
  - Malaria (nearly all falciparum) – risk present but relatively low especially this time of year
  - Dengue – endemic with moderate year round risk
  - Filarial disease present
- COUNTERMEASURES
  - DEET (sufficient to last 4 weeks) issued to all personnel prior to deployment
  - Pyrmethrin treatment of clothing
  - Bednets or AC, screened quarters
  - Doxycycline 100 q day during potential exposure in Haiti (not needed in Cuba)

Example of Threat Assessment
Haiti Invasion - Disease

- Person to Person
  - HIV – endemic, 5.2% prevalence among general adult population, up to 70% in commercial sex workers.
  - Hep B/D/C – endemic. General population prevalence of 14% carriers
  - STDs – endemic with gonorrhea 33% (70% penicillin resistant) syphilis 12%
  - Tuberculosis – highly endemic with high rates (20%) multi-drug resistant TB
- COUNTERMEASURES
  - No sex with locals
  - PPD prior to deployment (within last two years acceptable) and within 2 months of return

Example of Threat Assessment

Haiti Invasion- Disease

- Water or animal disease
  - Rabies – enzootic
  - Leptospirosis – endemic
  - Schistosomiasis – endemic
- COUNTERMEASURES
  - Avoid interaction with animals during deployment
  - No swimming, wading, or bathing in natural fresh water bodies during deployment
- Environmental
  - Average temperature for Feb 68-88 F with high humidity
  - Average rainfall 2 inches in Feb, 3.5 in March (dry season)
  - Elevation – sea level
  - Air pollution – smoke and dust

COUNTERMEASURES

- Pre-deployment measures
  - Confirm Immunizations
    - Hep A, B, typhoid
  - DEET/Permethrin/Bednets
  - Glasses, goggles, sunblock, lipbalm
  - Med threat brief

COUNTERMEASURES

- Deployment measures
  - Food and water from approved sources or Bottled, Baked, Boiled, or Peeled (BBBP)
  - Treat uniform with Permethrin, use DEET
  - Doxy 100mg q day beginning two days prior to possible exposure and continuing until post deployment flight medicine interview
  - No unprotected sex.
  - Avoid interaction with animals
  - No swimming, wading, or bathing in natural fresh water bodies during deployment
  - drink plenty of water.

COUNTERMEASURES

- Post-deployment measures
  - Post deployment questionnaire
  - PPD as directed

Local Medical Resources

- Cuba - Navy Hospital GTMO
- Puerto Rico – San Juan VA
- Dominican Republic
  - Clinica Abreu, No. 42 Independencia Avenue and Calle Beller, Santo Domingo DR Coordinates 18-28-01N 069-53-44W - 76 beds, ICU, surgery, (4 ORs) radiology, Good docs, used by embassy, mostly English speaking personnel
  - Dr. Diario Contreras Hospital, Avenida Las Americas, Santo Domingo DR, Coordinates 18-29-06N 069-51-48W - 287 beds, Primarily an orthopedic surgery hospital, has plastic, thoracic, and neurosurgery
- Jamaica – none
- Florida – Jackson Memorial

Transport capability

Summary of Deployment Planning

- The flight surgeon role is very simple
  - Know what your unit does before you need to support them in time of combat
  - Take garrison training seriously – you are the key!!!
  - Identify threats to the success of the planned operation
  - Develop countermeasures to mitigate the risk
  - Have a plan for emergency care (trauma or medical)
  - Make Recommendations - get CC Buy-In & Support
  - Constantly Monitor Status to insure that there has been no change and that your plan is still viable

Summary Checklist

- Assumptions – Enemy, Friendly, Location Mission
- Threats
  - Battle Injur
  - Non Battle Injury

Summary Checklist

- Disease Threats
  - Food and Water Borne (Diarrhea, HepA/E, Typhoid)
  - Vector Borne (malaria, dengue, yellow fever, plague, leish)
  - Person to Person (HIV, HepB/D/C, GC, chalm, syph, TB)
  - Animal or Water exposure (Rabies, Leptospirosis)
  - Environment (cold, heat, altitude, immersion, pollution)
  - Pre-existing Disease (Welcome to Brown & Root)

Summary Checklist

- Preventive Countermeasures
  - Address every threat – duh!
- Plan for emergencies
  - What can you do yourself? – better be ready to stabilize and transport
    - Stop bleeding
    - Airway
    - Fluid/blood replacement
  - Where are you going to get definitive care? (surgery within 6 hours is the goal)
  - How do you get them there? At least 2-3 different plans
    - Ground to local
    - Air to near local
    - Air to definitive

Training

- Training at home station will be your key to success in the combat environment
  - You own the training
  - You can always add additional things
  - It will make the difference between success and failure

SOFME training exercise

Questions?

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